

In the Claims:

Please amend the claims as follows:

What is claimed is:

1. (Currently Amended) A process for producing a metal-ceramic substrate comprising a ceramic layer and a structured metal layer with conductive tracks and contact surfaces on at least one surface side of the ceramic layer and a at least one brazing resist coating applied to the structured ~~copper~~ structured metal layer, the process comprising the following steps:

a) applying at least one metal foil to at least one surface side of the ceramic layer by high temperature bonding at a bonding process temperature higher than 650°C for forming at least one metal layer on the ceramic layer,

b) structuring the at least one metal layer on at least one surface side of the ceramic layer for forming the structured metal layer with conductive tracks and contact surfaces,

c) applying the at least one ~~coating of a~~ brazing resist coating to the structured metal layer ~~after the structuring~~, and

d) after applying the at least one brazing resist coating to the structured ~~copper metal~~ layer, removing some metal from the structured metal layer in an amount of 0.1-20 microns at least in surface areas bordering the brazing resist coating, and

e) leaving the brazing resist coating on the structured metal layer.

2. (Cancelled)

3. (Currently amended) A process as claimed in claim 1, wherein high temperature bonding is a direct bonding process or an active brazing process.

4. (Cancelled)

5. (Currently amended) A process as claimed in claim 1, wherein the at least one ~~coating of~~ brazing resist coating is applied before structuring.

6. (Cancelled)

7. (Previously Presented) A process as claimed in claim 1, wherein the metal foils are copper foils and they are provided on the ceramic substrate by means of the DCB process or the active brazing process.

8. (Previously presented) A process as claimed in claim 1, wherein structuring of the at least one metal foil takes place by means of masking-etching process and wherein the at least one coating of brazing resist is applied immediately after this structuring.

9. (Previously presented) A process as claimed in claim 1, wherein structuring of the at least one metal foil takes place by means of a masking-etching process using an etching resist and wherein the at least one coating of brazing resist is applied immediately before application of the etching resist.

10. (Cancelled)

11. (Currently amended) A process as claimed in claim ~~10~~ 1, wherein removal takes place by etching, using hydrogen peroxide, sodium persulfate, copper chloride or iron chloride.

12. (Cancelled)

13. (Previously Presented) A process as claimed in claim 1, wherein before the application of at least one brazing resist coating cleaning of the metal surfaces, by removing a surface area of the metal coatings, takes place.

14. (Previously presented) A process as claimed in claim 13, wherein cleaning takes place by chemical removal or by plasma etching or by electrical etching or galvanic removal or by mechanical working, by brushing or grinding.

15. (Previously Presented) A process as claimed in claim 14, wherein chemical cleaning takes place using a hydrogen peroxide solution or a sodium persulfate solution.

16. (Previously Presented) A process as claimed claim 1, wherein a surface metal coating is applied to at least one surface area of the at least one metal coating, which area is produced by removal and adjoins at least one brazing resist coating.

17. (Previously Presented) A process as claimed in claim 16, wherein the surface metal coating is applied such that the surface which has been formed by this surface metal coating is lower than level or roughly level with or projects over the surface of at least one brazing resist coating or lower than level or roughly level with or projects over the untreated surface underneath at least one brazing resist coating.

18. (Cancelled)

19. (Cancelled)

20. (Previously presented) A process as claimed in claim 1, wherein an epoxide-based coating is used for the brazing resist coating and wherein the brazing resist coating cures thermally.

21. (Previously Presented) A process as claimed in claim 1, wherein at least one brazing resist coating has a thickness of 0.5 to 100 microns.

22. (Previously Presented) A process as claimed in claim 1, wherein at least one brazing resist coating is structured in an area for forming an optically readable code.

23. (Cancelled)

24. (New) A process for producing a metal-ceramic substrate comprising a ceramic layer and a structured metal layer forming conductive tracks and contact surfaces on at least one surface side of the ceramic layer, and at least one brazing resist coating applied to the structured metal layer, the process comprising the following steps:

- a) applying at least one metal foil to at least one surface side of the ceramic layer by high temperature bonding at a bonding process temperature higher than 650°C for forming at least one metal layer on the ceramic layer,
- b) structuring the metal layer on the at least one surface side of the ceramic layer by applying a mask of a photo resist or edging resist to a surface side of the metal layer opposite to the ceramic layer and by subsequent edging away areas of the metal layer which are not covered by the mask of the photo resist or edging resists for forming a structured metal layer with the conductive tracks and contact surfaces,
- c) removing the mask of photo resist or edging resists and applying the at least one brazing resist coating to the structured metal layer,
- d) after applying the at least one brazing resist coating to the structured metal layer removing some metal from the structured metal layer in an amount of 0.1 – 20 microns at least in surface areas of the structured metal layer bordering the at least one brazing resist coating on the surface side opposite to the ceramic layer, and
- e) leaving the at least one brazing resist coating on the structured metal layer.

25. (New) The process of claim 24, wherein the at least one brazing resist coating is applied to the structured metal layer with a thickness of 0.5 to 100 microns such that it extends in a strip like manner along edges of the contact tracks and contact surfaces

26. (New) The process for producing a metal-ceramic substrate comprising a ceramic layer and a structured metal layer forming conductive tracks and contact surfaces on at least one surface side of the ceramic layer, and a brazing resist coating applied to the structured metal layer, the process comprising the following steps:

a) applying at least one metal foil to at least one surface side of the ceramic layer by high temperature bonding at a bonding process temperature higher than 650°C for forming at least one metal layer on the ceramic layer,

b) structuring the metal layer on the at least one surface side of the ceramic layer by applying a mask of a photo resist or edging resist to a surface side of the metal layer opposite to the ceramic layer and by subsequent edging away areas of the metal layer which are not covered by the mask of the photo resist or edging resists for forming a structured metal layer with the conductive tracks and contact surfaces,

c) removing the mask of photo resist or edging resists and applying the at least one brazing resist coating to the structured metal layer with a thickness of 0.5 to 100 microns such, such that it extends in a strip like manner along edges of the contact tracks and contact surfaces,

d) after applying the brazing resist to the structured copper layer removing some metal from the structured metal layer in an amount of 0.1 – 20 microns at least in surface areas of the structured metal layer bordering the brazing resist coating on the surface side opposite to the ceramic layer, and

e) leaving the brazing resist coating on the structured metal layer.

27. (New) The process for producing a metal-ceramic substrate as claimed in Claim 26 further comprising the step of:

f) applying a surface metal coating to at least one surface area of the at least one structured metal layer, the at least one surface area is produced by removing some metal from the structured metal layer and the at least one surface area adjoins the at least one brazing resist coating.

28. (New) The process for producing a metal-ceramic substrate as claimed in Claim 26 further comprising the step of:

g) applying a surface metal coating to at least one surface area of the at least one structured metal layer, the area is produced by removing some metal from the structured metal layer and the at least one surface area adjoins the at least one brazing resist coating.